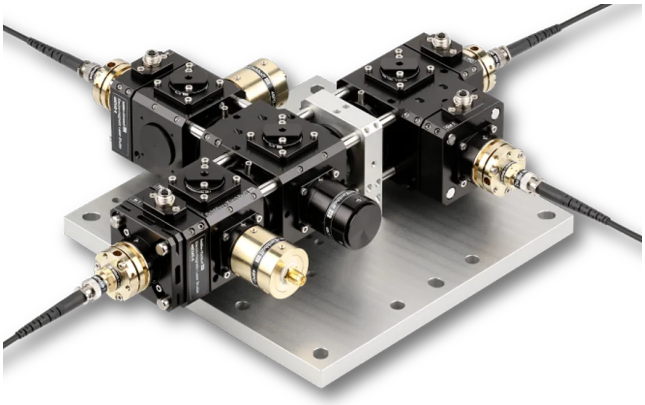
48-FPC-2-2_dc-xxx_Mod01

Fiber Port Cluster 2 ⇾ 2 dichroic, with shutters



FEATURES

Fiber Port Cluster for one input source

- Configuration 2 ⇾ 2 dc
- Electro-magnetic shutters at the two input ports
- Electro-magnetic shutters at the two output ports
- Highly efficient coupling into polarization-maintaining fiber cables
- Adjustable splitting ratio
- Compact, rugged, transportable and sealed opto-mechanical units
- Fully fiber-coupled
- Very high long-term stability, efficiency and reproducability

DESCRIPTION

This Fiber Port Clusters2 ⇾ 2 dc Mod01 is a compact opto-mechanical unit that combines two fiber-coupled sources with differing wavelengths and then splits the combined radiation into 2 output fiber cables with high efficiency and variable splitting ratio. Electro-magnetic shutter is placed at each of the two input ports and output ports.

Optical Setup

The input port is fiber-coupled to a PM fiber cable. A polarizer defines the input polarization which is necessary for a long term stable splitting ratio.
A photo diode right after the input port allows for a continuous monitoring of the radiation.
Subsequently, the radiation splitting is achieved by using a rotary half-wave plate in combination with a polarization beam splitter. By use of the rotary half-wave plate, almost any desired splitting ratio can be achieved.
At the output ports further polarizers are placed in order to define the polarization at output of the system.

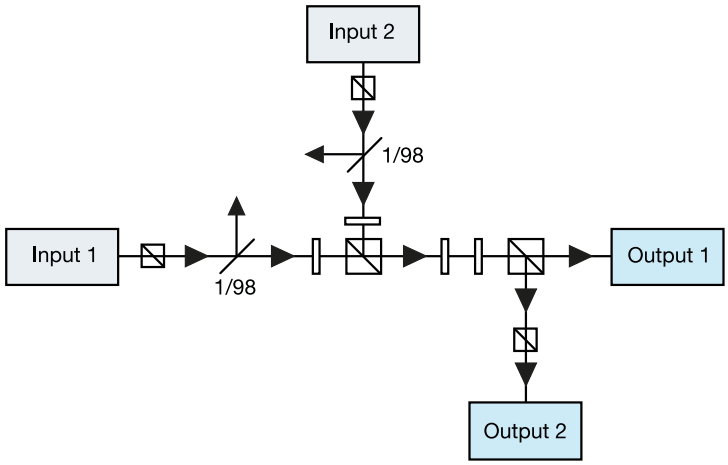
Fiber Couplers

A fundamental component of a Fiber Port Cluster is the Laser Beam Coupler, which is the input into the opto-mechanical unit collimating the input radiation and, finally, couples the radiation back into the polarization-maintaining fiber cables. The stability of the total Fiber Port Cluster is determined by the stability of the laser beam coupler.

Electro-magnetic Shutters
An electro-magnetic shutter is placed at each of the two input ports and output ports. For a description and further technical specifications, please refer to the electro-magnetic shutter type 48EMS-6.

How to order
For a detailed quotation please additionally specify

- Wavelengths In 1 and In 2
- Cable lengths
- Connector types



TECHNICAL DATA

48-FPC-2-2_dc-xxx_Mod01

Order code	48-FPC-2-2_dc-xxx_Mod01
Configuration	2 → 2 dc
	electro-magnetic shutters
Wavelengths*	767 + 780 nm
Fiber type	polarization-maintaining
Connector type	FC APC (standard)
Cable lengths	customer-specific
Wave plate type	low-order
Power monitor	BPX-61 (SMA)
Transmission	≥ 70 % @ 767 nm
	≥ 60 % @ 780 nm
Polarization Extinction Ratio	≥ 23 dB @ 767 + 780 nm
Balancing	better 3 %

* Different wavelength combinations on request

TECHNOTES

- Article - Fiber Port Cluster
  Rugged, modular and fiber coupled beam splitting and combining units
- Connecting multicube assemblies to a base plate
  How to connect the self-supporting multicube system

DOWNLOADS

980129090615.pdf (Dimensional drawing)

Article_Cluster.pdf (Technote)

RELATED PRODUCTS

FIBER COLLIMATOR 60FC-Q	Fiber Collimator for collimating large beam diameters and with integrated quarter-wave plate
POLARIZATION ANALYZER SK010PA	Measurement tool for coupling into polarization-maintaining fiber cables
FIBER COLLIMATOR SERIES 60FC-SF	Fiber Collimator/Fiber Coupler with super-fine thread
ELECTRO-MAGNETIC SHUTTER 48EMS-6	

This is a printout of the page https://sukhamburg.com/products/details/48-FPC-2-2_dc-xxx_Mod01 from 4/29/2024

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